

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

A 281.8
F22
COPY 2

THE FARM INDEX

U.S. Department of Agriculture / Economic Research Service / August 1970

9
8

5

RURAL AMERICA'S NEW FACE P.8

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

JUL 28 1970

CURRENT SEASON RECORDS



Agricultural Outlook

On the national scene, prices of many things are still advancing despite a cooling of the economy. Yet food and fiber prices seem to be leveling out, and no marked letup in spending for food, clothing, or shoes is in sight.

In other areas, mid-summer indications of the general economic slowdown include: The rise in unemployment . . . cuts in Federal spending . . . another downturn in housing starts . . . a sharp reduction in stocks. Even so, a small pickup in economic growth is expected late this year.

In rural America: Job opportunities in manufacturing industries now appear to be better outside than inside big city labor markets.

The impact of the past 2 years' cutbacks in government contracts is among the factors now beginning to show up. Result: At the beginning of 1970, growth rate of jobs in the "metro" areas was considerably below that elsewhere in the country (see page 10).

Mobility, paradoxically, has proved to be stability for many rural families hit by the high cost and unavailability of new housing.

The Nation fell about 625,000 units short of its goal for new housing units to be built in fiscal 1969 and 1970. But mobile homes—costing less than one-third of conventional housing—will probably more than fill the gap. A recent survey of their occupants showed that most of them were rural, highly "immobile," and used their wheeled abodes as primary, not secondary, homes.

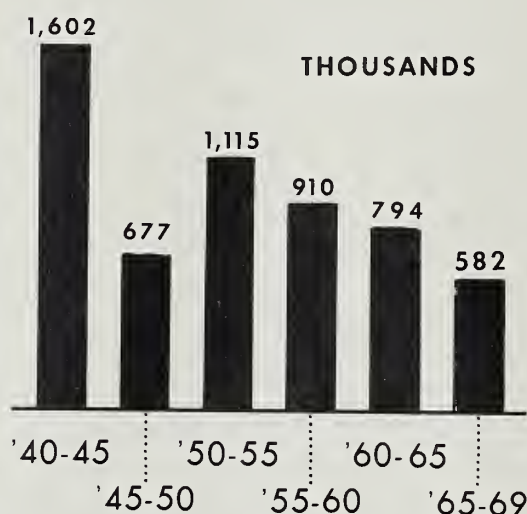
The U.S. farm population dropped over 34 percent between 1960 and 1969 to reach an annual average of 10.3 million last year.

But when one subtracts the number of people moving onto farms from the number of people leaving farm life, the farm popu-

lation loss in the past 5 years is little more than half of the estimated net outmigration in 1950-55 during the great rush to the cities.

As always, the men on farms outnumber the women—106 to 100 last year. (Beyond the farm fence, women outnumber men 100 to 92.)

Farm Population's Net Loss*



* NET CHANGE THROUGH MIGRATION AND RECLASSIFICATION OF RESIDENCE FROM FARM TO NONFARM.

Looking further up the road. In the decade now unfolding, the efficient commercial farmer can continue to enjoy a secure place in the economy. He will earn more, produce more, and use less labor.

More specifically, this is what he can expect between now and 1980:

—Consumer purchases of food and fiber will increase only a little more than population. Even so, higher incomes coupled with population growth, indicate a rise of 70 to 75 percent from the \$104 billion that consumers spent for food in 1969. At the same time, spending for clothing, shoes, and tobacco—totaling about \$60 billion last year—may nearly double by 1980.

—Feed use and exports of our farm products, especially feed grains and soybeans, will be up considerably.

—Farm output will total about

one-fifth more than it is at present.

—Farm numbers may drop below 2 million from the 3 million of today.

—Possibly a third or less of 1980's farms will produce 85 to 90 percent of all farm products marketed. Though they will use less labor, they will use a lot more capital.

The look-ahead for some commodities. Beef and veal consumption, at a record per person high of 114 pounds in 1969, may rise 16 to 18 pounds by 1980. Producers will have to boost output about one-third to meet such demand.

Chicken and turkey demand, projected a fourth more per person in 1980, will require a 35 to 45 percent production increase to raise the present 47-pound-per-person yearly serving.

Milk and cream prospects are mixed. Today's 400,000 farms selling these items may be reduced by half. But many of the survivors will have 100 cows or more—and they may be tripling their cash receipts and facing no surpluses.

The egg business will grow in the 1970's—but slowly. Total use of eggs is expected to rise around a tenth over the decade, slightly less than the projected growth in population; and more eggs will be used for hatching.

Per person use of eggs will therefore continue to trend slowly downward—declining by perhaps 5 percent from the 316-egg per capita usage in 1969.

We'll be eating fewer table eggs but more eggs in processed forms. The number of shell eggs going into such production by 1980 may be up substantially from the 31 processed eggs used per person in 1969.

Poultry feeding may become more efficient. Twenty years ago, the average layer produced only 174 eggs yearly; last year, 220

Contents

eggs; by 1980 probably around 230.

Foreign spotlight. Brazil is alarmed over the discovery of coffee rust fungus in the north-east state of Bahia and has approved drastic measures to control it. Early this year the disease had already spread over about 22 percent of Brazil's coffee land, though it had not yet reached the big producing areas of Sao Paulo and Parana.

Canada has temporarily cut loose its dollar from the official exchange rate of 92½ cents to the U.S. dollar to help slow down a pileup of foreign exchange reserves. This increase in reserves was depleting the Canadian government's cash position.

Since the Canadian dollar was freed, it has appreciated about 3 cents (U.S.). The increase in the value of the Canadian dollar will increase the price of exports and lower the price of imports—thereby aiding Canada in its fight against inflation.

The USSR was among countries represented at the 4th International Sunflower Conference in Memphis, Tenn., mid-June.

Russian sunflowerseeds are strong competitors in the world vegetable oil market. Russian sunflowerseed plantings this season are estimated at about 11.9 million acres, compared with 11.8 million acres in 1969.

World output of red meat in '69 was down 1.4 percent to 128.5 billion pounds—first decline of the decade. Reason was less pork. Beef and veal output is estimated at 70.1 billion pounds; pork, 49.3 billion; lamb-mutton-goat, 9.1 billion.

FARM

RURAL LIFE

MARKETING

CONSUMER

FOREIGN SCENE

Audrey Ames Cook
Editor

Martin Schubkegel
Assistant Editor

Mary Jane Casey
Diane Decker
Walter M. Patrick
Staff Editors

The Farm Index is published monthly by the Economic Research Service, U.S. Department of Agriculture. August 1970. Vol. IX, No. 8.

Contents of this magazine may be reprinted without permission. They are based on research of the Economic Research Service and on studies done in cooperation with State agricultural experiment stations. Use of funds for printing this publication approved by Director of the Bureau of Budget, May 24, 1967. Subscription price: \$2 yearly (\$2.75 foreign). Order from Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.

Features

- 4 What Will Cattlemen Do?**
... After reviewing the options for supplying the burgeoning demand for beef
- 8 Rural America: New Face For Old Image**
First in a series of four articles about our country's economic potential
- 12 The Milk Industry And the Quest For Quality**
Higher quality standards are coming for the milk used to make dairy products
- 16 Pint-And-Pound Prices**
In the course of consumerism, price by unit of weight or measure gets a trial run
- 19 Prospectus — Feed Grains 1980**
Worldwide usage is heading nowhere but up

Departments

- 2 Agricultural Outlook**
- 21 Recent Publications**
- 22 Article Sources**
- 23 Economic Trends**

Numbers in parentheses at end of stories refer to sources listed at end of issue.

What will cattlemen do?

The beef industry has several alternatives for meeting an upsurge in demand. The question is which of these will keep market baskets well stocked at reasonable prices.

The U.S. cattle industry is going to be called upon for a great deal more beef in the years ahead.

Population growth alone is enough to bring about a big increase in needs.

There's no telling what will happen to beef consumption per capita. If this increases at two-thirds the rate of the last 10 years, by 1980 U.S. cattlemen would have to produce a third more beef than in 1969 to fill the demand.

Industry leaders are closely examining the options for meeting the run on beef. Uppermost they aim to keep the market basket stocked with high quality meats—and at reasonable prices to consumers.

The best "calculated guesses" of total beef and veal consumption 10 years from now indicate increases that range from 20 percent to 35 percent over the 23 billion pounds used in 1969.

The "high" projection would be the case if consumption per person keeps going up. Last year's per capita figure was 114 pounds.

The "low" projection assumes no rise in per capita consumption, only in total numbers of consumers who would be potential beef eaters in 1980.

How can the cattle industry supply these bigger requirements? It has several alternatives. But some options look better than others:

- Increasing the calving per-





centages. This has possibilities. But calving rates can't be expected to climb much above the present figure of almost 90 percent. The rate could be increased through multiple calving, although multicalving on a commercial scale may be years off.

- *Crossbreed for hybrid vigor and better performance.* Besides being a long run proposition, it involves questions of economic feasibility.

- *Feed cattle to heavier weights.* Perhaps, but at the risk of damaging beef's present image. Consumers probably prefer the weights and grades now being offered. Also, those marginal pounds would be costly to produce in the feedlot.

- *Import.* As for live cattle, significant increases are unlikely. And imports of beef and meat products are regulated by law.

- *Increase cow numbers to produce more feeder cattle.* All things considered, this alternative seems the best. The increase needed would be substantial—an average annual increment of 1.5 million head of beef cows between 1970 and 1980. That's a half million more than the yearly increase during 1950-69.

Assuming the industry puts primary emphasis on cow numbers and feeder cattle, the next question is which regions will do the breeding and feeding?

All regions can contribute to breeding cow numbers, though the potential appears greatest in the Corn Belt, and the southern and southeastern States.

These have a good resource base to build on, from the standpoint of current cow inventories, feed supply and other factors.

The Plains States are our major beef cow region, producing 40 percent of total beef cows in 1969. These States are likely to remain in a leading position. Their future rate of growth will depend to a large extent on profitability of wheat production and changes in land use.

Less certain is which regions will do the finishing of calves.

At present, feedlots are concentrated in the High Plains, the Northern Plains, and western fringes of the Corn Belt. This is also where most of the growth in the cattle feeding business is taking place.

Though these areas will probably continue to be the major feeding centers, there is room for expansion elsewhere, particularly in the Southeast and in the heart of the Corn Belt. In addition, such expansion could cut down on costs of bringing meat to the important eastern markets.

Three-quarters of the U.S. population lives in the eastern half of the country. Many feeder cattle are produced there. Yet it is in the West where over half our beef cattle are fattened. Much of this meat then heads back East.

For example, large numbers of feeder calves produced in the Southeast move into the High Plains and Southwest to be fattened, while many of the High Plains feeders move elsewhere.

Meanwhile, the Corn Belt is shipping feed supplies to western feedlots. The end product, finished beef, then re-crosses the Corn Belt to the major population centers.

Whether changes in these marketing patterns would be profitable remains to be seen.

The Southeast produces mixed breeds of cattle that perform well in the feedlots of the High Plains and Southwest. And, consumers in the West like the quality of beef from the southern cattle.

Feedlot operators in the Corn Belt, on the other hand, prefer British breeds available from the Mountain States.

And while faster growth in feedlots outside the Plains States might be advantageous, cattle feeders in the Plains are making large investments in feeding and packing facilities. This could bring substantial pressure for expansion in this region. (1)

Farmers' Herbicide Bill Grows Along With Those Pesty Weeds

Farmers spent \$243 million in 1966 to combat one of their worst enemies—weeds.

Herbicide expenditures comprised nearly half (48 percent) of farmers' \$561-million bill for all pesticides. Pesticides for treating crops cost almost \$506 million; for livestock pests, over \$29 million; and for other uses—ranging from seed treatment to rodent control—\$26 million.

Farmers paid 17 percent more for pesticides in 1966 than they did in 1964. Most of the increased outlay was for herbicides—the weedkillers. And manufacturers' sales rung up since the official

1966 data indicate a continued increase of around 10 to 15 percent yearly in their use.

The stepup in these purchases is attributed to farmers' use of new, selective herbicides as a substitute for mechanical cultivation—which in turn has largely supplanted oldtime hand labor.

On much cropland—such as that in corn, cotton, and soybeans—farmers have been seeking better methods of effective weed control. The new herbicides provide them this means.

Herbicides were used on about 103 million crop acres and pastures in 1966, at an average cost of \$2.37 per acre. (These figures exclude defoliants, desiccants, herbicide-insecticides, or other mixes.)

In 6 of 10 regions, farmers spent more for herbicides than for any other type of pesticide.

In the Corn Belt, Lake States, Northern Plains, and Delta States, herbicides took more than 50 cents out of every dollar that farmers spent on pesticides.

Nationwide, costs for herbicides ranged from 20 percent of the pesticide dollar spent in the Southeast to 70 percent in the Corn Belt.

Three crops—corn, cotton, and soybeans—absorbed almost 70 percent of the total value of U.S. herbicide purchases.

—Corn producers spent \$95 million (an average of \$2.49 per acre) to control weeds on about 38 million acres.

—Cotton producers spent \$29 million (\$5.33 per acre) on herbicides for about 5.4 million acres.

—Soybean growers' herbicide bill was \$43 million (\$4.16 per acre) to treat 10.3 million acres.

More weedkillers—\$79 million worth—were used in the Corn Belt than in any other region. Lake State farmers were the No. 2 herbicide customers, spending \$29 million. Their counterparts in the Delta States spent \$27 million; and in the Northern Plains, \$20 million. (2)

Skills, Not Brute Strength, Pay Off Most in Farm Labor Returns

It was probably true that 100 years ago the farmer came out best when he could find a farm laborer of maximum strength at minimum pay.

The laborer used little capital—in seasonal harvest tasks—perhaps only a scoop to handle grain, and at most a team of horses and wagon or cultivator worth several hundred dollars.

Today the story is different. The laborer may be handling \$50,000 or \$100,000 worth of equipment. The problem is to find hired workers with the necessary skills and knowledge to handle this huge investment and who will provide the greatest payoff for their wages and the capital with which they work.

A dependable skilled laborer who has the abilities and interests to “really make the capital perform” will have the greatest pay-off and put him in good standing with his employer.

For many farmers this is the new way of looking at the use of labor. It is the hired worker who provides the greatest proportion of skills, farming implementation, and supervised managerial tasks relative to whatever he is paid. The salary may be higher for this skilled person, but it will still be the best investment in the long run.

As farming has become more mechanized, some farmworkers have adjusted and become more skilled or taken on increased managerial responsibilities.

Other workers have left the farm and have taken jobs with other productive businesses, including firms which have assumed an increasing role of supplying capital farm inputs. Hence, a more capitalized agriculture has emerged with the profitable substitution of more machines for labor.

However, the need for skills

Unwelcome Blossoms

Perhaps the best definition of a weed is, “a plant growing where it is not wanted.”

The Cherokee rose, despite its beauty, is an obnoxious pasture weed. Bermudagrass is a useful forage crop in pastures, but in row crops it is a troublemaker.

Then there's the morning glory. It is highly esteemed by many homeowners. They welcome the climbing tendrils and colorful blossoms.

But to many farmers, the morning glory is an unwelcome, destructive weed—especially in a cotton or corn field. The flowering vine, in fact, ranks among the top 20 most unwanted weeds out of at least 600 pesty plants that plague farmers.

In addition to the morning glory, wild mustard and thistles in wide variety would rack up a lot of points in an unpopularity poll.

Others among the most unwanted include lambs'-quarters, foxtails (both giant and green), horse nettles, and pig, spine, bind, and nut weeds.

The large family of grasses has a great many unwelcome, weedy members. Barnyard grass and crab grass, however, vie with each other as being the most undesirable wherever they grow. (3)

and managerial abilities on larger farms with high levels of mechanization has greatly raised the caliber of labor sought by commercial farm employers. The number of larger farms is increasing, and they are producing a larger share of our total U.S. output of farm products.

It's true that both family and hired labor have declined drastically in numbers. Yet labor is still a crucial ingredient in farming, and it appears that hired labor—especially skilled, fulltime workers—will become an increasingly important element of highly commercialized farms of the future, in all farming areas. (4)

Harvesting a Crop the First Year Cuts Costs of Irrigated Pastures

Costs of establishing irrigated pastures in eastern Colorado range from \$9 to \$85 per acre depending on physical conditions and management practices.

The highest costs seem to occur where seeding is done in the fall and no crop is obtained the first year. And if reseeding is necessary, it's likely that costs may be even higher.

To avoid loss of a crop the first year, one might harvest a crop of hay or spring seed with a nurse crop. And payments through the Great Plains Program administered by the Soil Conservation Service may also help reduce first year costs.

These are some of the conclusions drawn from ERS studies in cooperation with the Colorado State University Extension Service to determine the inputs, costs, and return associated with the establishment and maintenance of irrigated pastures.

Annual operating costs during 1969 for six pastures studied ranged from \$41.23 per acre, where beef production was low. It came to \$74.40 where production was high.

Average costs for average production were \$57.40 per acre.

In this case, water—including pumping, depreciation of the irrigation system, and interest payments—came to \$24.30, not counting labor. Fertilizer was the next costliest item at \$16.70 per acre.

Farmers who fed yearlings over a 5½-month period reported that gains per day on the average pasture ranged from 1.5 pounds (515 pounds of beef per acre) to 1.8 pounds (618 pounds per acre).

However, one farmer whose pasture was well above average got 673 pounds of beef per acre, with average gains of around 1.52 pounds per day.

His gross returns above the purchase price of the yearlings were \$36.88 per head. After deducting the total expenses associated with his irrigated pasture, he made a net profit of \$1.76 per head. (5)

Lease It, Don't Till It, Is Popular With California Rice Land Owners

Nearly half of California's rice producing land is not tilled by its owners. It's leased.

Terms of the lease vary considerably depending on the operator's resources, average yields on the leased acreage, rice prices, and input costs.

Nevertheless, three types of leasing arrangements seem to be especially popular with owners and operators of California's rice land, according to a 1969 survey of county records.

Although about 30 percent of the land on these farms was operated last year by full owners, about 45 percent of the total land in rice was leased. Nearly 23 percent was under a 25/75 percent share lease.

Under this arrangement the lessor usually received 25 percent of the rice crop for furnishing

the land and supplying a quarter of fertilizer, pesticide, and drying costs.

About 25 percent of the acreage was worked on a 33/67 percent share lease under which the lessor received a third of the production but furnished water, land, and 33 percent of the allotment, fertilizer, herbicide, insecticide, and drying costs.

Under other conditions, close to 17 percent was worked under a 15/85 percent share lease. Among other types of leases, a cash lease for the land predominated. Cash leasing of land varied from \$30 to \$60 per acre and averaged \$47 per acre for those reporting. (6)

Grain Driers in Nebraska Serve As Useful "Bench Mark" Standard

Shifts in crop harvesting and handling methods can be useful "bench marks" in a survey of technological advances.

Take grain driers in Nebraska.

In that important corn producing State, the number of driers used for shelled corn on farms almost doubled—from 3,634 to 6,880 in the 5-year period, 1959-64.

And the current census is expected to show a continuation of this trend as farmers have been handling more and more of their production as shelled corn. By 1964 over 80 percent of it was dried on the farm.

Statewide, 80 percent of the shelled corn produced on farms with 50 or more acres was dried artificially on the farm. Only 10 percent of all farms did not dry their corn in any form at all.

The farm operator with 50 or more acres of corn generally favored the relatively inexpensive and flexible instorage layer method of drying. The farmer with less than 50 acres went more for portable batch driers. Also popular were continuous flow and batch-in-bin methods. (7)

Rural America: New Face for Old Image



"Inside America" — outside the big city centers—rejuvenation of life and livelihood is a real prospect for the 1970's as new enterprises create new lines of work.

Rural America is not a depressed or dying area, as some people think.

New manufacturing jobs opened up faster in the last 10 years in rural America than in metropolitan areas.

The negative image of rural America has perhaps been nurtured by those with a tendency to view it as a homogeneous unit, ignoring the vast differences between Appalachia and the Great Plains; or between the Northeast and the mountain areas of the West.

Public understanding of the potential of rural America has suffered too, from a confusion of "farm" and "rural." It is true that "farms" have lost a great

many people since World War II. But all of "rural" America has not suffered a similar loss.

Also, though wage levels and other measures of economic well-being are generally lower than in the cities, many rural counties are doing very well. This is particularly evident in the growth of new job opportunities:

—Private nonfarm employment in counties outside metropolitan areas rose faster (5 percent annually) than in metropoli-

tan areas (4 percent) between 1962 and 1967.

—New plants or expansions of old ones in rural or partly rural communities accounted for a fifth of the national gain in manufacturing employment during 1962-67.

—Nearly half of the new manufacturing jobs in 1960-70 were in nonmetropolitan areas, although these areas have only about one-fourth of the total jobs.

Rural counties of the South, particularly, have attracted a good deal of new industry. They accounted for three-fifths of the annual gain in manufacturing jobs.

Counties in the Great Lakes industrial belt, and in the area from Lake Superior southwest through Minnesota, Iowa, and Missouri, show substantial growth in job opportunities. Scattered counties in the Northeast gained, mainly in manufacturing. Gains in the West stemmed mainly from construction of dams, mining, and recreation.

Rural counties in the West North Central and Mountain States—where distances are vast and population sparse—are among the few areas that have lagged in development of new jobs.

By region, employment rate gains in manufacturing in metropolitan and smaller, more rural labor markets between 1960 and 1970 areas stack up as follows:

Region	Metro Nonmetro	
	Percent	
Northeast	0.1	1.2
North Central	1.2	2.6
South	3.4	4.7
West	2.4	1.7
United States	1.3	3.1

One indication of industrial growth in rural areas is the variety of products pouring from newly operating rural factories:

—Consumer items: wearing apparel, foods, and home building

materials; all types of furniture and furnishings, household fixtures and appliances, radio and TV sets; mobile homes, trailers, pleasure boats; garden and power tools; and costume jewelry and watches.

—Industrial products: chemicals and pharmaceuticals, motor vehicles and parts, aircraft and components; industrial hardware such as dies, machine tools, structural metal, stampings, piping and tubing; and steel and alumi-

num products from reduction plants and rolling mills that have gone into small towns and cities.

Population trends have taken a more favorable turn for many parts of rural America.

True, agriculture has been a heavy population loser since the end of World War II. The number of people on farms dropped 12½ million from 1950 to 1968—a loss of 64 percent.

But population statistics for the nonfarm parts of rural America in recent years reveal a much different situation.

Rural counties as a group, including farming areas, lost only about half a million in population through outmigration from 1960 to 1966. This is a trickle compared with the flood of 4.6 million persons lost during the 1950's.

In parts of the country, the migration tide reversed. Many rural counties in the southern Piedmont, middle Tennessee Valley, eastern Oklahoma, and northern and western Arkansas—which lost population in the 1950's—gained in the 1960's.

Even in the 1950's—a period of great population change—more than three-fourths of nonmetropolitan towns between 2,500 and 25,000 increased in population. Their growth rate of 21 percent exceeded the U.S. average of 18 percent. Among the 2,000 rural or semirural counties, 353 increased population 15 percent or more.

Towns of 2,500 to 5,000 grew at the national rate. Even villages under 500 showed a small aggregate growth nationally, though over half lost population.

Rural America offers advantages not available in most metro areas—advantages that will probably continue to attract people.

Land values are lower than in cities. This is an advantage to industry. Industrial sections of many cities have not kept pace with technology, and redevelopment costs are high. It is often

Pikeville Thinks Big

This community of 6,000 in the valley of the Big Sandy River in eastern Kentucky has had problems enough to defeat any town.

But Pikeville's dreams match its problems. The city has developed a plan for progress. It earned the town the "All America City" award in 1966.

Before the plan was launched, over 52 percent of the households earned less than \$3,000 a year. Six percent were on welfare. Unemployment had reached 14 percent after mechanization reduced jobs in the coal mines, the city's only industry. Nearly three-fourths of the homes were substandard. Crime and delinquency were rising.

Pikeville is already benefiting from the plan. For instance, better schools and recreation facilities have slowed the upward trend in crime and juvenile delinquency. Other projects in process are:

—Cutting a valley through the mountains wide enough to relocate the Levisa Fork of the Big Sandy, the C. & O. railroad tracks, and U.S. Route 23 out of town. This will release 220 acres in the heart of town to ease traffic and renovate the business district.

—Blasting the tops off two mountains and filling the valley between to make space for an airport.

—Creating a new "service center" to help residents locate credit sources to finance low-income housing.

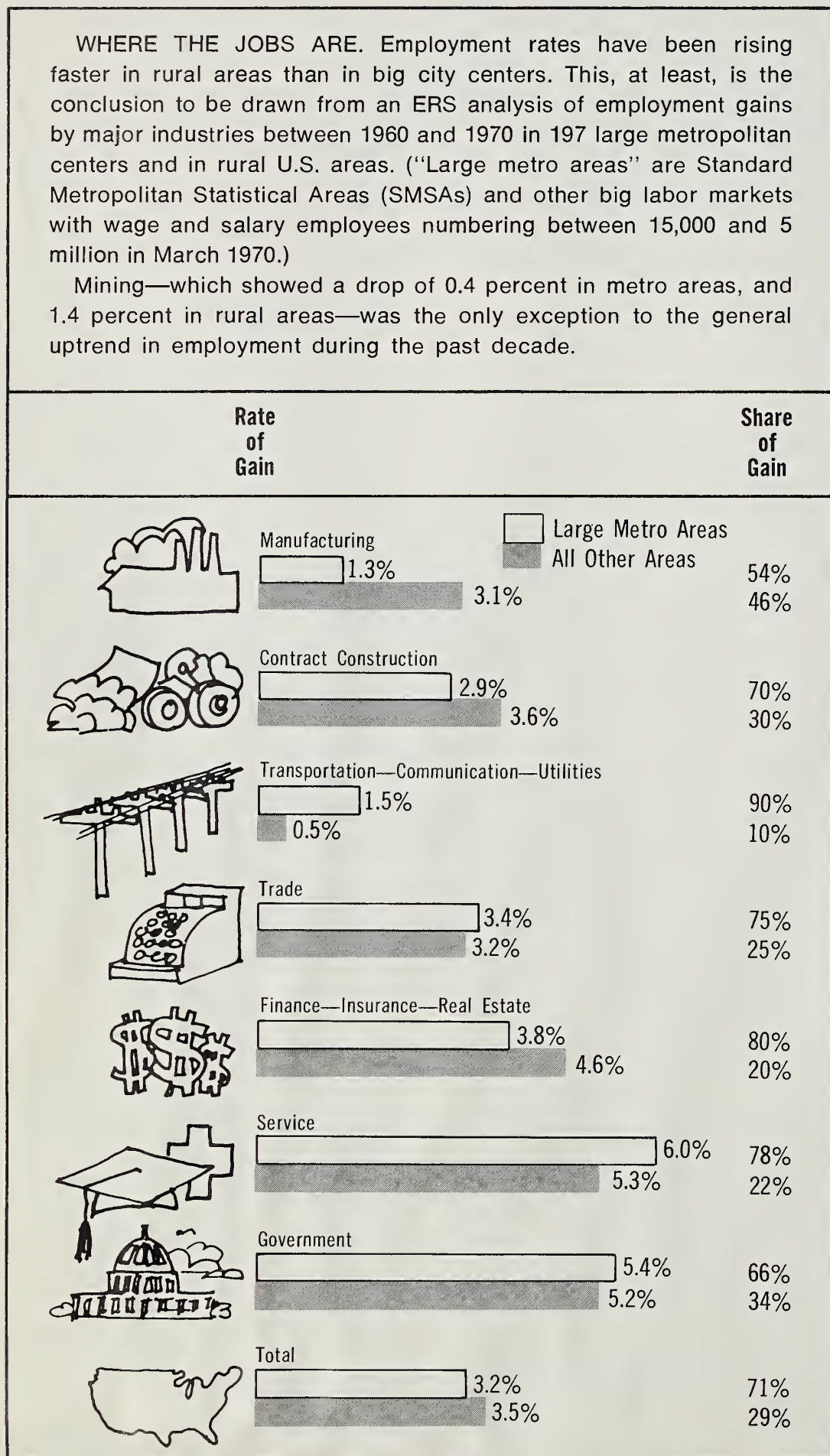
cheaper to move to rural areas. Traffic is less of a hassle. Living conditions are often more pleasant. Life tends to be quieter and more evenly paced. Improvements in transporta-

tion and communication are lessening disadvantages of rural communities. At a time when the United States is feeling the effects of social and technological change, the stability shown by smaller towns is often attractive to investors. These advantages will still be attractive in the years ahead.

The trend toward decentralization of food processing, packaging, and distribution will also benefit rural areas, as will further expansion of recreational facilities.

The greatest boon to further economic growth may prove to be the growing awareness of potentials for development in rural areas.

[This is the first in a series of four articles about rural America. Subsequent articles will cover community services, cooperation among neighboring localities, and public and private programs available to help in development.] (8)



Wisconsin Vacation Resorts Plan For Demand Spurt in Recreation

The best salesman for many vacation resorts in rural Wisconsin doesn't get paid for his services.

He's the well satisfied customer, the man who goes home and spreads the word to friends and family.

"Word of mouth" recommendations heavily influenced the choices of resorts by vacationers who participated in a survey of 90 Wisconsin establishments.

Prepared by the University of Wisconsin and USDA's Economic Research Service, this recently published study delves into various aspects of the recreation resort business—who the patrons are, the recreation activities they especially prefer, and more.

It is intended as a guide for private resort owners and managers as they get ready to meet a

ballooning demand for recreation in Wisconsin.

According to the Wisconsin Department of Natural Resources, the demand by 1980 is going to increase by around 50 percent from what it was in the late 1960's.

Who frequents Wisconsin resorts? A mixed-bag of pleasure seekers, vacationers range from serious anglers and aquanauts, to those who just "lie around."

This study puts the main preferences for recreational activities into three categories. Ranked by the respondents in order of importance: fishing, swimming, and mixed interests—such as hiking, "loafing," rock collecting, sight-seeing, and boating—but excluding fishing and swimming.

A substantial number of the people interested primarily in fishing said they preferred vacation sites in the northern counties, whereas the swimmers and the mixed group generally favored the southern areas and the Door County Peninsula.

Of the nearly 700 vacation groups reporting (groups included families and parties), almost 60 percent lived in Illinois, about 30 percent in Wisconsin, and 7 percent in Indiana.

Fishermen traveled the greatest distances to reach the resorts visited, and they tended to travel in small parties of two to four people. The swimmers tended to have four or more. The mixed interest category had the highest percentage of people vacationing alone.

The fishermen often were older than the other groups, 45 to 64 years of age. They worked at semiskilled and skilled occupations. Swimmers, on the other hand, worked as owners, managers, or professionals in their various occupational fields. The mixed group varied, though they more closely resembled the swimmers.

The fishermen groups had proportionately the most people on

vacations with pay. They also favored resorts that offered cabins or housekeeping units. The swimmers and mixed categories preferred motel with meals under the American plan.

Nearly half of all groups intended to stay at various spots during their vacations. Fishermen were somewhat more prone to stay at one resort. (9)

Competition for Qualified Workers Troubles N. Y. Agribusiness Firms

Finding qualified workers is becoming a real problem for agribusinessmen and the multi-billion-dollar industry they represent.

Employers in this industry are looking for persons with farm or rural backgrounds. This breed of candidate is getting harder and harder to find.

A once abundant pool of potential labor—with a favorable orientation to agribusiness work—is rapidly drying up, as rural population declines and youngsters seek new educational and occupation experiences disassociated from agriculture.

Agribusiness embraces the whole panoply of agricultural-related activities—not only the production of food and fiber but also the processing, and the supplying of the materials used in production of agricultural items.

The broadness of the agribusiness spectrum, however, may be somewhat beside the point. The fact in focus is: this industry has difficulty recruiting qualified people.

According to a recent survey of agribusiness firms in New York State, most of 192 firms with fulltime employees said their No. 1 recruitment problem was competition for qualified workers from other businesses and industries.

No doubt contributing to this

competition are certain conditions connected with agribusiness work that tend to discourage prospective employees, like long and irregular hours, low salary, and hard labor. These were often mentioned by the firms in this survey as posing serious problems for recruitment efforts.

When asked about the need for a "specialized agribusiness recruitment service," about half the firms believed such a service would be a help in their business. (12)

Nation Jacks Up the Quality Of Its Housing—Mobile Homes, Too

Honey Brook, Paradise, and Cranberry Glades. Yes, homes in these communities, as elsewhere in rural U.S.A., have shared in the nationwide upgrading of housing quality that came with the post-World War II building boom.

Twenty years ago, 62 percent of rural America's homes were substandard (meaning that they lacked at least one basic plumbing item or were dilapidated).

By 1968, this proportion had dropped to 20 percent, compared with an all-U.S. substandard rate of 9 percent.

Thousands of mobile homes are among new dwellings, especially in rural nonfarm areas.

In 1960, about 104,000 mobile homes rolled off the production line to make up about 8 percent of new dwelling units. Now, mobile homes are being built at the rate of about 400,000 a year—or 26 percent of new house "starts." And with today's tight money and the attendant low level of housing construction, packaged houses on wheels are becoming more important than ever in supplying rural housing.

Despite popular belief, old folks don't take to mobility as readily as young families who have moved along with their roofs to new jobs in medium-sized towns. (11)

Higher standards, on the way, would hasten today's trends in marketing and production.

Quality controls over the milk used in manufacturing dairy products are likely to be tightened in the next couple of years.

Most of the States, of their own accord, have been upgrading the quality of their milk.

But some segments of the industry, as well as certain States, have not paid enough attention to improving sanitation, facilities, and manufacturing milk standards.

This situation prompted USDA, in cooperation with the Department of Health, Education and Welfare, to begin work 2 years ago on revising the 1963 standards for manufacturing milk—the raw material for butter, cheese, nonfat dry milk, evaporated milk, and other dairy foods.

The new standards are expected to be issued later this year for voluntary adoption by the States, following further consultation with representatives of the industry and other parties.

In brief, the proposed major changes involve:

- Lowering the bacterial limit for "acceptable quality" manufacturing milk over a specified time period.
- Tightening regulations control-

The Milk Industry and the Quest for Quality

ling farm water supplies.

—Requiring adoption of the milk testing program prescribed by the National Mastitis Council.

To remain in force are the provisions of the present recommended standards for farm inspection and certification; inspection of raw milk at processing plants; and plant licensing requiring certain procedures and facilities for sanitation.

How many people in the dairy industry would be affected by the recommended standards?

USDA reports the majority of the producers, processors, and plants are already within the requirements of the proposed standards.

Of all manufacturing grade milk, an estimated 70 percent would satisfy the bacterial standards.

Also, over 70 percent of total U.S. milk production now complies with the regulations for Grade A fluid milk, which are more stringent than those for manufacturing milk.

Obviously, the adoption by all States of the revised standards would assure processors and consumers of getting better—and more uniform—quality and

wholesomeness in the products they buy.

That's not all these standards would do.

They would also strengthen certain production and marketing trends that have been shaping for the past 2 decades.

Average size of commercial milk herd—today about 30 cows and steadily climbing—would increase faster than in the absence of the higher standards, as producers strive to raise milk output to offset the costs of installing the required facilities.

Also, the trend over the years for small producers to get out of the dairy business might be accelerated, because of the additional investments these men would have to make.

These adjustments could cause production to go up in some parts of the country, and down in others.

On balance, however, the net change would be relatively small.

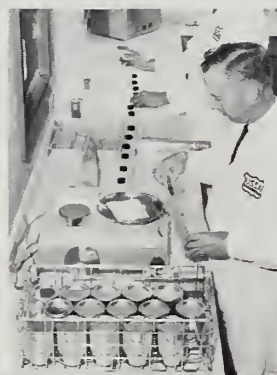
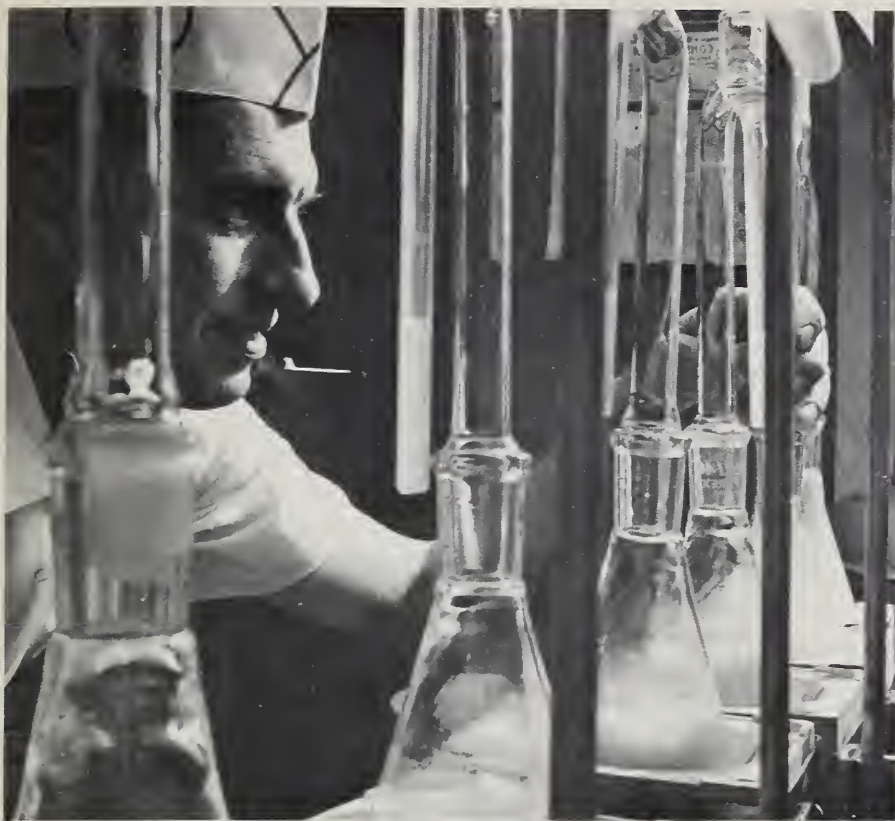
A rough idea of the cost involved for those producers who have previously provided little if any facilities, is given in a study by the Economic Research Service made in cooperation with the University of Minnesota.

In that State, which ranks second to Wisconsin as a producer of manufacturing milk, the added capital outlay to install the required facilities under the proposed manufacturing milk standards could increase production costs by almost \$1.50 per hundredweight of milk, depending upon the producer's present facilities and the size of his herd.

These are costs to build and equip a milkhouse, drill a well, put in a sewage disposal system, and make changes in the barn.

For the Nation as a whole, the recommended standards could, in some instances, hasten the current trend in the proportion of total milk supply becoming eligible for the Grade A fluid market.

In 1969, a record 72 percent of the milk that farmers sold to



plants and dealers was eligible for the Grade A market, compared with 67 percent in 1960. (Not all this milk was consumed as fluid milk; some went into the manufacture of dairy foods.)

Higher prices for Grade A milk are the main reason why more producers are attracted to Grade A production.

Last year, for example, the Grade A price per hundredweight averaged about \$1.40 higher than the price for manufacturing milk, which was \$4.31.

With the new recommended manufacturing milk standards, this price difference will become even more of an inducement to change over to Grade A.

That's because the cost to install Grade A facilities isn't too much greater than the cost of

meeting the revised farm facility requirements for manufacturing milk.

In other words, some of today's producers of manufacturing grades might opt to go all the way . . . and switch over to fluid production.

It seems likely that if the new voluntary standards were adopted by many States in 1970, Grade A production over the next couple of years will expand much faster than in recent times.

Between 1968 and 1969, Grade A output rose from 70 percent to 72 percent of farm marketings of bulk milk.

Those producers meeting standards for fluid grade milk may have difficulty finding Grade A outlets to obtain the higher value for fluid grade milk. The

existing Grade A producers would resist any flooding of their milk pools because it would lower their prices.

Devising a system to equalize returns among all Grade A producers—including those who will qualify in the future—could prove to be the foremost challenge facing the dairy industry in the decade ahead.

One answer may be to modify Federal milk orders to provide for broader participation in Federal order pools.

Another approach to working these supplies into the marketing system in an orderly way is being used by cooperatives in the central part of the country.

Through what is called a "standby pool," some cooperative manufacturing plants in Minnesota and Wisconsin that have developed Grade A milk supplies—but which are not under a Federal order—agree to make their Grade A milk available to fluid milk markets that are short of milk.

In return, certain cooperatives that ship a major portion of their milk supply to fluid markets make payments to a pool for distribution to the standby plants. (13)

Computers Can Cause Narrowing Of Price Spreads Between Feeds

Computers, being used by more and more of the big manufacturers of livestock rations, enable these men to quickly work out the least-cost combination of feed ingredients.

The computer has also brought about changes in price relationships between feedstuffs.

This machine tells the feed manufacturers which feeds are good buys and which are not, after considering the relative feeding values and the price sellers are asking.

When the computer indicates low-cost combinations, the manufacturer buys more of the lower-priced feeds. The result is a bidding up of the price of these feeds, and vice versa in the case of the overpriced feeds.

In the upshot, feed prices are pulled closer together.

The computer has apparently been a factor in the narrowing of the price spreads between the various high-protein ingredients going into livestock and poultry rations.

Of the high-protein feeds, soybean meal is today by far the biggest component in rations, accounting for more than twice the combined amount of three other important meals—cottonseed, meat, and fish.

Relative to soybean meal, the price variations for these other meals have been less pronounced in the past 5 years than in the 1948-52 period.

Besides the computer, the narrowing of spreads has been due in part to larger and more stable supplies of some of these feeds.

Availabilities of fish and meat meal for feeding increased at a slightly faster rate than those of soybean meal between 1948-52 and 1964-68. Supplies of cottonseed meal, on the other hand, have been considerably smaller in recent years. (14)

Break with Breakfasts Past

Oatmeal—at least the kind you have to cook for some time—is going the way of other onetime staple breakfast foods: Down.

The big drop—from 473 million pounds in 1963 to 195 million pounds in 1967—however, was largely offset by an increase in ready-to-eat oat cereals.

Cornmeal mush is no longer a bestseller at the breakfast table either. Use of cornmeal totaled over 50 pounds per person in 1910. By the 1960's it had fallen to 6 or 7 pounds. But corn's other food uses are increasing. All told, corn use rose 60 percent since 1954. (15)

Tomatoes Could Be the Story of Successful Food Processor's Life

Changing tastes of the younger generation are one reason why certain vegetables are now much more in demand than they used to be.

These tastes, combined with convenience and price, have also sparked a shift from fresh to processed vegetables.

Tomato products are one of the big gainers since 1960 and there's no indication that they will fall back.

In the rather short span of 10 years, per person use of processed tomato items altogether rose 18 percent (an average of 2 percent a year). Translated into terms of fresh tomatoes, this means that every U.S. citizen is now eating over 50 pounds of tomatoes a year in some form of processed product.

As a conveniently rough estimate, the Nation's huge basket of processed tomato items represents (on a fresh equivalent basis) about one-quarter of all vegetables used—fresh, canned, or frozen, excluding potatoes. And of all canned vegetables, tomatoes and tomato products constitute about one-half.

People have cut down their intake of canned tomato juice a couple of small glasses a year (about half a pound per person, in terms of processed weight) since 1960. But on a per capita basis they've been pouring out more catsup and tomato sauce. Each of these categories have picked up gains of 1 pound per person.

Tastes of young consumers are one of the main forces behind these changes.

They form the longest line at the quick-food franchise businesses that feature catsup-seasoned hamburgers and french fries.

Add to this, the now much larger market for tomato-slathered pizzas. Then toss in a new item, "crushed tomatoes." It is thicker than the peeled product but thinner than sauce, and is easily made from tomatoes mechanically harvested in both West and East. (16)

Traders and Processors Take Biggest Bite of Cotton Dollar

About 90 cents of each dollar that the consumer pays for finished cotton products goes for processing and trading services between the cotton producer's gate and the consumer's shopping bag.

The big marketing margin for cotton includes the cost of taking seed cotton to the gins, having it ginned and baled, warehousing, delivering the bales to mills, manufacturing the cotton into cotton goods, distributing the goods through wholesale channels, and retailing to the consumer.

Retailers take the largest portion of the consumer's dollar. The average retail share was one-third in 1967, but the amount varies greatly depending on the cotton product involved.

The retailer's share of a \$5.00 all-cotton shirt can amount to as

much as \$2.50. The farmer receives only about 25 cents.

Next to retailers, manufacturers of apparel and household goods take the largest slice of the market margin in the breakdown of the cotton dollar. They accounted for 29 percent in 1967—about the same as in earlier years.

Ginning and baling charges and merchandiser's margins each accounted for about 2 percent of the consumer's cotton dollar, depending on the price of cotton, costs of bagging and ties, and costs of storage and transportation.

Spinners, weavers, and finishers received 18 cents of the cotton dollar in 1967—up from 12 cents in 1962.

Wholesaling accounted for about 8 percent of the total value of operations and services. (17)

Can a Fresh Peach o' the South Find True Happiness in a Can?

When you bite into a fresh, juicy peach there's a pretty good chance it's a southern peach.

The South has for many years produced about half the peaches that wind up fresh on fruit stalls throughout the country.

The processed peach business, on the other hand, has traditionally been centered in the West. An average of 94 percent of the processed peaches marketed between 1960-68 came from western States—primarily California.

The South's share averaged only 4 percent, with Georgia and South Carolina the major growers.

The rising cost of producing and marketing fresh peaches, changing consumer demand, and instability of the fresh market have recently spurred interest in expanding the processing market for the South's peaches.

How feasible this would be depends on how well the South

would fare in competition with the West.

This, in turn, hinges on southern peach yield per acre; the cost of producing, processing, and transporting southern peaches; and the processing quality of southern peaches, compared with western peaches for processing.

The two main types of commercial peaches are freestone and clingstone. Freestone peaches—best known variety of which is the Elberta—are usually softer than clingstones and are most used fresh or frozen.

Clingstones have a fine, close-textured flesh with fine aroma, and are most popular for canning. But the orchard sweetness of both types can be fully kept in processed form.

In 1968 California's yield per acre (11.7 tons, 12.2 of clingstone and 10.5 freestone) averaged nearly twice as high as Georgia's 5.5 tons and South Carolina's 6.9 tons.

The cost of producing peaches for processing in 1968, however, appeared to be little affected by differences in yield per acre. Costs per ton in California came to \$69.69, compared with \$64.29 in Georgia and \$72.17 in South Carolina. Costs in two other big peach-producing States, Michigan and Pennsylvania, were higher—\$116.14 and \$106.75, respectively. Yields per acre were not enough to offset higher land charges and labor rates.



Differences in processing costs per case between California and the Southeast were relatively small. Though operations tend to be larger in California, economies of scale in California are largely offset by the relatively higher cost of labor and other production necessities. California's costs came to \$3.92, exclusive of raw product cost. The Southeast's came to \$4.03.

Would it cost more to deliver canned peaches to metropolitan centers from Spartanburg, S.C., or from Stockton, Calif.?

Estimates made in a recent marketing study indicated that Spartanburg would have the advantage in shipping to 8 of the 10 cities (Boston, New York, Detroit, Chicago, Minneapolis, Omaha, Atlanta, and Dallas—which altogether take in about 80 percent of the total U.S. population.) Spartanburg's estimated cost advantage over Stockton ranged from 0.8 cents per can in Omaha, to 3.0 cents in Atlanta.

Peach processing plants in the South would seem, therefore, to have quite a potential for development.

Some of the factors which have discouraged their development in the past and which still merit consideration are:

—Peaches for processing might not always be available—given the uncertainty of weather conditions in the South—once the fresh market had taken its share.

—Processors tend to favor the firm flesh of California cling peaches over the softer fruit of southeastern freestones. Therefore, southeastern peaches would probably have to be priced a few pennies less in order to compete for market volume. And this price difference could offset economic advantages the South may have.

—The massive promotional and merchandizing methods that are widespread among western canners create difficulties for competitors elsewhere. (18)

Pint-and-Pound Prices



Food stores are now having a go at putting cost-per-unit price tags on products in an attempt to satisfy consumers' unabating demands for more information, clearly stated.

Consumers are traditionally quick to censure, slow to applaud, eager for recognition.

Today, they also want to be informed: they want the facts about the products they buy and the price tags attached to them.

And so—for richer or poorer—the seller is courting the buyer.

The courtship has been encouraged by numerous consumer-oriented Federal, State, and local laws and regulations recently enacted or pending. Among them are various measures to provide the food shopper with more information, clearly stated.

Unit pricing is one of these measures.

In recent months a number of big food chains have given unit pricing one temporary "Go" sign by introducing customers to it.

It's too soon yet to tell whether unit pricing is what consumers

really want—and something they will really use for their own benefit.

One thing is sure about unit pricing: not very many consumers know very much about it. So, what is it?

Unit pricing tells customers how much products cost by the ounce, pound, pint, quart, or some other common denominator suitable for specific, comparable items. The idea is to take the guesswork out of prices and make it easier for consumers to compare costs.

At present, there are about 8,000 different items in a big supermarket, and 2,000 more are being added every year.

These items still come in a staggering number of different sized packages. The 6-slice packages of liverwurst, 320-ounce boxes of detergent, 2-ounce jars of instant coffees, and No. 303 cans of peas of undeclared weight are examples.

For the food shopper without a strong background in merchandising or a Ph.D. in math, it's almost impossible to make price comparisons.

One's dilemma is heightened when items are priced in multiples such as 2/for, 3/for. Suppose the same size cans of evaporated milk are priced at 2/.39 and 5/.99. Which is the least expensive per can? And how much would a single can cost?

If YOU are an economy-minded food shopper you should be able to tell which of the items below are the best buy for your food dollar.

Unit pricing would give you the answers.

Today's average shopper may waste about 10 cents of each food dollar if he doesn't have the information or desire to take advantage of the best bargain.

EVAPORATED MILK 14½-OZ. SIZE

<i>Multiple price</i>	<i>Cents per can</i>	<i>Unit price would be:</i>
2/.39	19.5	.20
3/.53	17.7	.18
4/.87	21.8	.22
5/.99	19.8	.20

GREEN BEANS, PLAIN CUT #303, 16-OZ. CAN

2/.41	20.5	.21
4/.89	22.2	.23

In the above instances, the weights per can are the same. All you have to figure out is the price for each can. But what happens when you face different sizes?

INSTANT COFFEE

<i>Size of jar</i>	<i>Cents each</i>	<i>Price per lb. would be:</i>
2-oz.	.71	\$5.64
4-oz.	1.09	\$4.36
8-oz.	1.97	\$3.94

To see how unit pricing works you'll have to find out which stores in what cities have adopted the system or are giving it a trial run. (New York, Boston, Chicago, Washington, D.C., and San Francisco are among them.)

Also, you'll find that the trade often refers to unit pricing as "dual pricing," since the per-ounce, per-pound, or per-pint price is usually given *in addition* to the price of the whole package so that both prices are visible.

Various methods are used to flag the per-unit prices:

✓ Gummed labels, computer-printed and affixed to shelf facings. Label information includes: Name of item; price per unit (pint, pound, 100 square feet, etc.); size of package, and total price. Unit prices may be carried as far as three decimal points, or simply rounded to nearest cent.

✓ Large printed cards placed near unit-priced products.

✓ Read-out shelf tags placed in front of individual products.

✓ A list posted at the end of each grocery aisle of all the items in that aisle and a cost-per-measure price; or large banners hung at aisle ends.

✓ Large calculator wheel featured at various spots in a store; and, in some cases, additional calculator wheels placed on a number of carts or available in small, purse sizes from service desks or checkout counters.

Interest in unit pricing is spreading fast. But most leading food retailers—and spokesmen for consumers as well—seem to agree that it warrants a closer and longer look before specific costs and consumer reaction can be gauged to a meaningful degree.

It is recognized, too, that food

shoppers don't buy on the basis of price alone. They also have preferences, sometimes deep-rooted, for certain qualities, brands, and packagings. There are also status considerations.

Many questions about unit pricing remain.

Consumer surveys and analyses of sales data in upcoming months may answer at least some of them.

For example, if there is a noticeable consumer shift from one size package or brand of product to another it may mean that some consumers have gotten the message written for them.

But how many? And how many from inner-city, low-income families—the people whom unit pricing is particularly designed to protect and benefit?

After all's done and said, unit pricing may prove to be what consumers want and what their sponsors will endorse.

If so, unit pricing could become the Truth-in-Pricing volume of a consumerism saga that began with last year's best-sellers, Truth-in-Packaging and Truth-in-Lending. (19)

Average Individual In U.S. Eats 1 of 7 Meals Away From Home

Do you know how often you ate away from home last year?

What did you order as a main course?

Did thoughts of your income influence your selections?

If you lived in a big city, did you eat out more often than your country friends?

Perhaps you can't answer these questions. Few people can. That's one reason why USDA made a 1-day nationwide survey awhile back to find out as much as possible about people's eating habits, both at home and away. The survey covered about 14,500 family members.

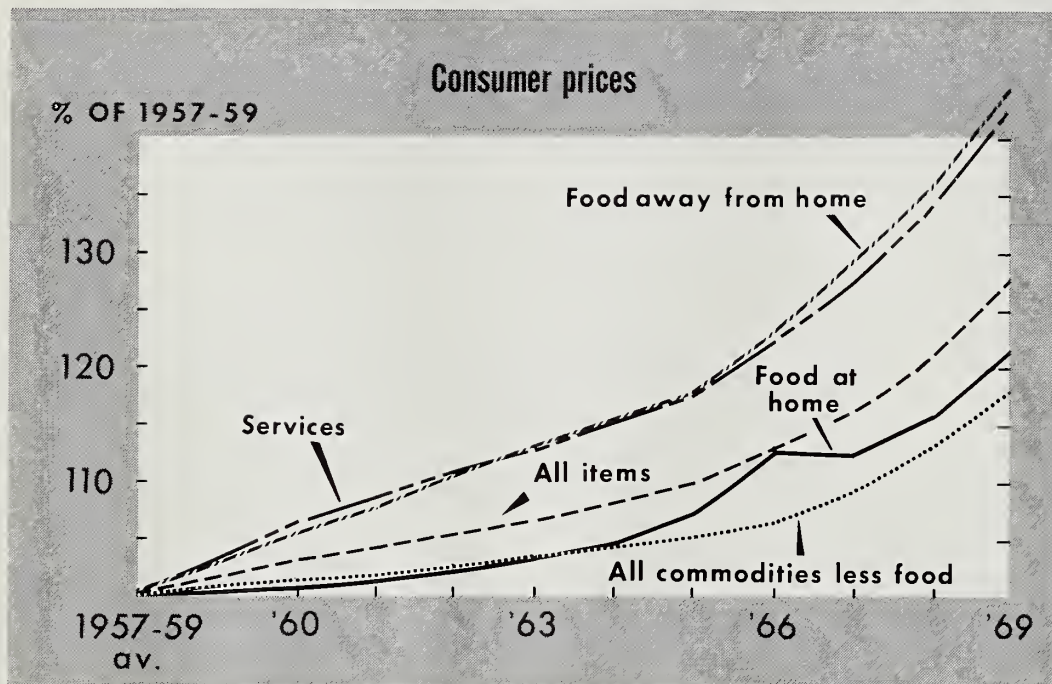
For survey purposes, meals eaten out included those received

FOOD AND YOU. Although people are spending more than ever on food, their earnings have in general been going up at an even faster rate.

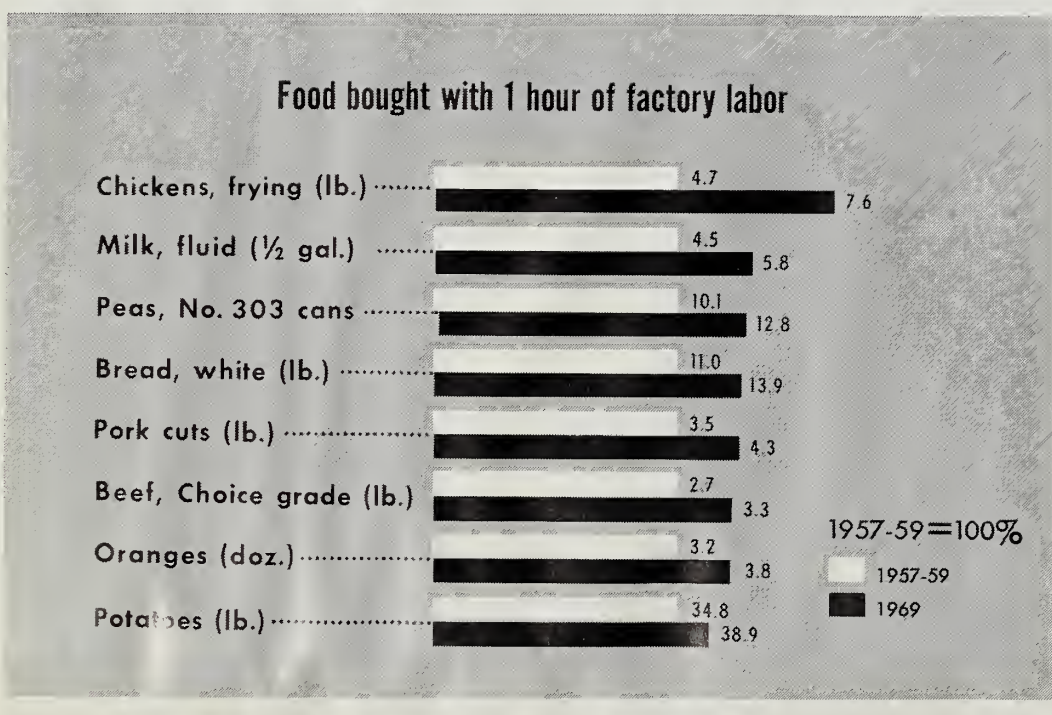
Consumers spent \$511 per person for all food in 1969. This was 34 percent more than the 1957-59 average. The increase was more than the 22-percent rise in food prices during this period and apparently resulted from shifts to more expensive foods and more eating out.

Over the same period, per person income, after taxes, went up from \$1,846 to \$3,098—a 68-percent increase.

Thus, the percentage of income spent for food declined steadily during the 1960's. In 1957-59, consumers spent 20.6 percent of their disposable income for foods. By 1969, food's share was down to 16.5 percent. This allowed consumers to spend for things other than food.



Another way to view the cost of food is in terms of the amount of food that the average wage earner can buy with an hour's wages. The chart below, shows what the earnings of 1 hour of factory labor would buy last year at the retail food store, and what it would have bought a decade earlier. The average wage earner, for example, could buy 3.3 pounds of choice beef (all cuts) in 1969 with 1 hour's wages, compared with 2.7 pounds in 1957-59. (21)



free as a guest, and those eaten at work or school. Findings would indicate that:

—People eat about 14 percent of all their daily meals and snacks away from home. In both North and South—and in most food categories—city dwellers eat out more than rural people.

—On the whole, however, people in the South eat a greater percentage of their total meals away from home than their Northern neighbors—not because they eat a larger number of meals out, but because they eat fewer times a day.

—Most unlikely choices for eating-out fare are predominantly breakfast foods: eggs, cereals, and fruits (especially citrus fruit and juices). Most likely are mixtures containing poultry, fish and seafood, or meat (mainly hamburgers), ice cream, and sweet baked goods. Also very popular are candy, soft drinks, and alcoholic beverages.

—Nationwide, the proportion of certain foods eaten away from home ranges from 3 percent for breakfast cereals to 26 percent for soft drinks and candy.

—The biggest difference between geographic areas is in proportions of candy eaten out—30 percent for the South—18 for the North. Though Northerners eat more candy overall, their big bites are at home.

—The higher a family's income, the more meals and snacks its members eat away from home.

—As incomes go up, foods eaten out include a greater proportion of eggs, bakery goods, fats and oils, fish and shellfish, and jellies. For a few items—fruits, vegetables, and cereals—the proportion eaten away from home appears unrelated to income.

The proportion of food expense represented by food eaten away from home has gone up in recent years—but not enough to change the relationships derived from USDA's 1965 survey. (20)

Feed Grains 1980

Rising incomes, growing populations, climbing consumption of meat products, higher grain/meat ratios. Any way you look at it, the prospect is bullish for feed grains.

World feed grain usage is riding the crest of a swelling demand for livestock products.

Projecting future requirements for feed grains, the Economic Research Service envisages an annual rate of increase of 4 percent in the amount of feed grains fed to livestock during the next 10 years.

This would push total feed grain consumption to 515 million tons by 1980, up 62 percent from the 1965 figure—the bench mark used for the demand projections.

Behind this optimism are expectations of rising per capita incomes that would stoke the demand for meat by an increasing number of people.

Meat consumption, the researchers say, is already soaring in such places as Japan and Spain. And it is beginning to climb in parts of Latin America, West Asia, and the Near East.

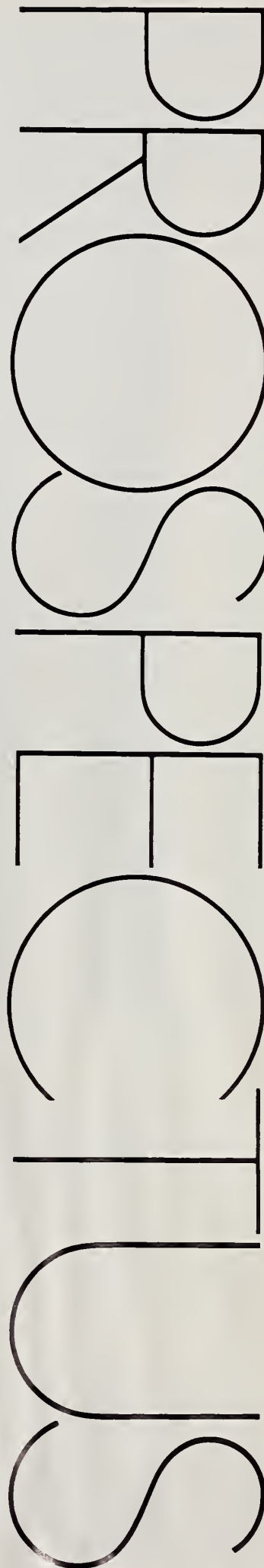
The ERS study indicates that not only do incomes spur meat demand—and thus feed grain consumption—but they are also associated with more intensive feeding of grains to livestock.

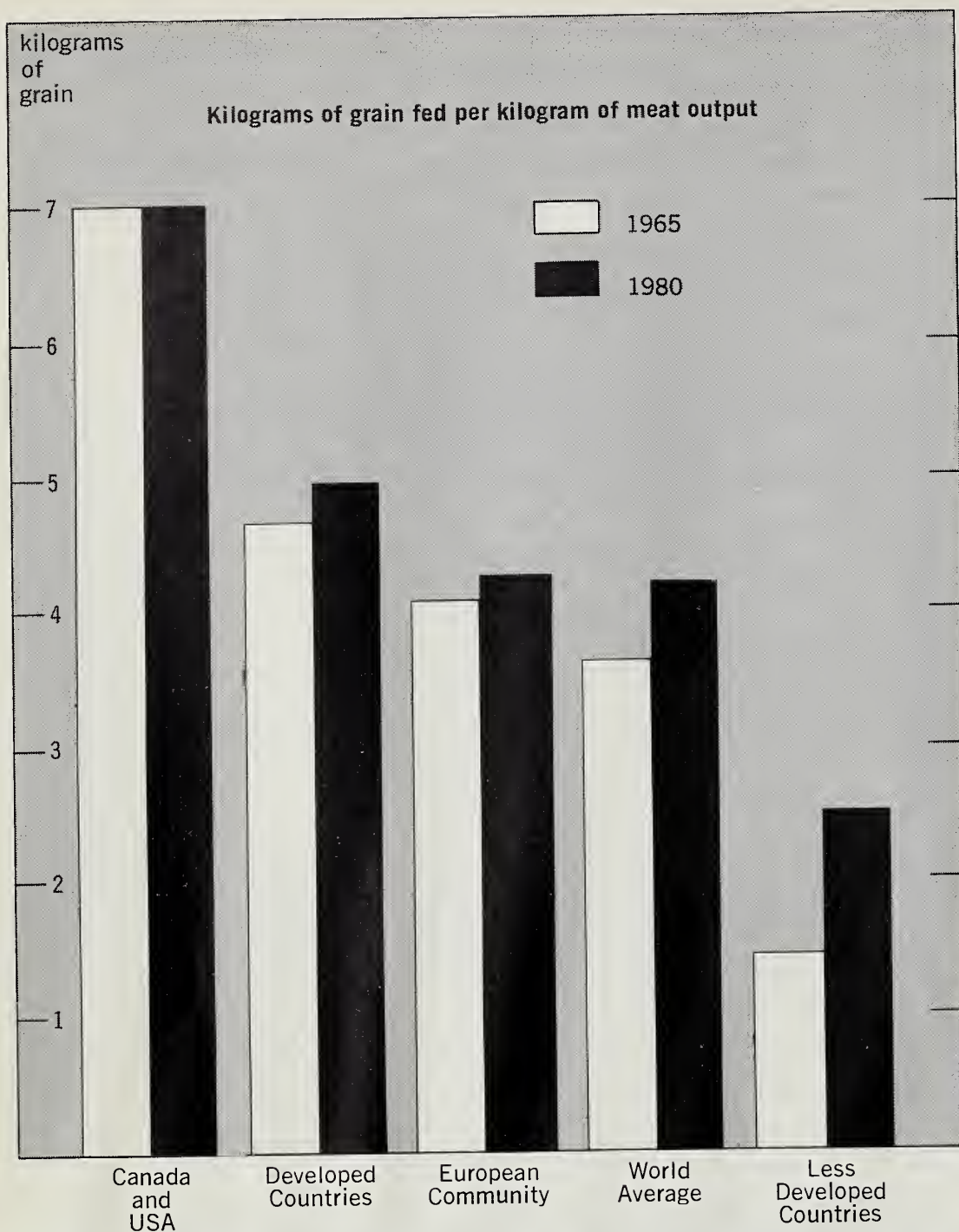
The economists express this phenomenon in terms of grain/meat ratios, the amount of grain used to produce a given quality of meat.

It is in the developed countries where these ratios are highest. One reason is that in these high-income countries, grain is a more important component in livestock rations.

Another has to do with types of livestock the developed countries are raising.

Compared with the less developed countries, they produce relatively more poultry and hogs—livestock that require large quantities of feed grains.





In 1970, it's estimated that the developed countries as a group will use about 4.7 kilograms (roughly 10 pounds) of feed grains to produce 1 kilo of meat. The ratio for the less developed countries is estimated much lower, approximately 1.8 kilos (4 pounds).

By 1980, however, the ratio in the less developed countries is expected to rise sharply to 2.5 kilos—one-third above the 1970 estimate. In the economically advanced countries, the increase would be less striking—about 4 percent or 4.9 kilos.

These projections take into account anticipated changes in incomes, in meat demand, in the kinds of livestock to be raised in the future, and various other factors.

The bigger feed grain requirements will continue to be met by the exports of the developed nations, even though many other areas will be stepping up their domestic production.

The United States is expected to maintain its No. 1 ranking as a net world exporter of coarse grains, including corn, sorghum, and barley.

South Africa and Oceania would contribute 4 or 5 million tons each, compared with less than a million in 1965. Canada's exports might hold steady at around 1 million tons.

Some of the less developed countries may have broader opportunities than they had in the 1960's to participate in the growing world export market for feed grains.

Especially promising is the export potential in Argentina, Mexico, Brazil, and Thailand.

For the less developed countries as a group, however, indications are they may reverse their position as net exporters of feed grains—to become net importers. Their *imports* in 1980 are forecast at over 5 million tons, compared with *exports* of about 5 million in 1965, assuming average per capita meat consumption is maintained at the current level.

To a large extent, whether the projections for feed grain demand are realized will pivot on developments in the main importing areas of Western Europe, particularly the European Community, and in Japan.

The EC, currently the world's top importer of feed grains, is expected to continue to import at or near the rate of recent years, around 13 million tons annually.

But this figure, ERS notes, could easily double, with just a slight upward deviation in the projection for meat demand.

Imports by Japan, next best world customer after the EC, are estimated at least 10 million tons in 1980, twice the level of 1965. Contributing factors will be rapid growth in per capita incomes and advances in the present low level of meat consumption.

Although there are a number of livestock feeds that could substitute for feed grains around the world—like root crops and grass—they would probably not supplant feed grains to a measurable degree. In fact, feed grains might well replace nongrains. (22)

Recent Publications

TURKEY'S AGRICULTURAL ECONOMY IN BRIEF. Michael E. Kurtzig, Foreign Regional Analysis Division. ERS-For. 298.

Continuing modernization of farming technology, greater use of fertilizers, and introduction of higher yielding plant varieties have improved Turkey's agricultural picture. Though agriculture still dominates the Turkish economy, government efforts to step up industrial programs continue.

UNITED KINGDOM: PROJECTED LEVEL OF DEMAND, SUPPLY, AND IMPORTS OF AGRICULTURAL PRODUCTS, 1970, 1975, AND 1980. Foreign Regional Analysis Division. ERS-For. 248.

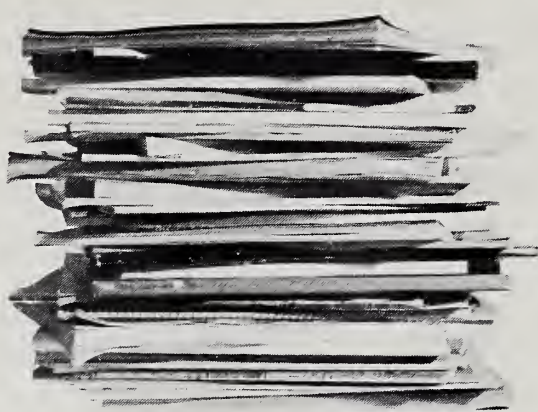
The United Kingdom's future imports of fruits, vegetables, and tobacco are expected to rise, and imports of wheat and feed grains to decline.

CROPLAND TRENDS SINCE WORLD WAR II: REGIONAL CHANGES IN ACREAGE AND USE. Orville E. Krause, Natural Resource Economics Division. AER-177.

There is evidence that new cropland has been developed in recent years throughout the country. Yet cropland abandonment appears to have been greater than revealed by the gradual downward trend in the Nation's total cropland acreage or by changes in State totals. (See May 1970 Farm Index.)

CONSUMERS' KNOWLEDGE AND USE OF GOVERNMENT GRADES FOR SELECTED FOOD ITEMS. T. Q. Hutchinson, Marketing Economics Division. ERS Research Report 876.

In a national sample of households, consumers for the most part evidenced little knowledge of Federal grades. This study also indicates many consumers erroneously believe all food items to be graded, and that they confuse grades with inspection marks.



The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

COST OF STORING AND HANDLING COTTON AT PUBLIC STORAGE FACILITIES. Joseph L. Ghetty, Whitman M. Chandler, Jr., Edward H. Glade, Jr., and Ollie A. Cleveland, Jr., Marketing Economics Division. ERS-443.

Increased costs of major inputs and reductions in stock available for storage have caused average storage costs to rise over 50 percent since fiscal 1964/65.

PROSPECTS FOR AGRICULTURE IN THE CARIBBEAN. Robert V. Enochian, Marketing Economics Division. Foreign Agricultural Economics Report 58.

The major objectives of this report are to identify the barriers impeding greater agricultural production in the Caribbean region and to indicate what is being

done and what needs to be done to overcome these barriers. (See August 1969 Farm Index.)

A SURVEY OF AGRICULTURE IN URUGUAY. Special Projects Branch, Foreign Regional Analysis Division. ERS-For. 299.

Since the early 1950's, Uruguay's agriculture has stagnated because of unfavorable prices received for major farm products—especially wool and beef, the country's leading export items. (See March 1970 Farm Index.)

THE HIRED FARM WORKING FORCE OF 1969. Robert C. McElroy, Economic Development Division. AER-180.

This report presents information on the size and composition of the 1969 hired farm working force and on the employment and cash earnings from farm and non-farm wage-work obtained during the year. Last year's hired labor force declined about 12 percent from the estimated 2.9 million hired farmworkers in 1968. The largest proportion of farmworkers (42) percent lived in the South. (See July 1970 Farm Index.)

METHODS OF HARVESTING, HANDLING, AND DRYING CORN FOR GRAIN IN NEBRASKA, 1964. Herman W. Delvo, Robert Rawson, and Delbert Lane, University of Nebraska, in cooperation with Farm Production Economics Division, Nebr. Agr. Expt. Sta. Economics Report 56.

This report presents benchmark data for analyzing equipment changes over a period of time.

INDICES OF AGRICULTURAL PRODUCTION FOR THE WESTERN HEMISPHERE EXCLUDING THE UNITED STATES AND CUBA. Western Hemisphere Branch, Foreign Regional Analysis Division, ERS-For. 264. Indices of agricultural production in this statistical pub-

lication and that listed immediately following were prepared as part of a continuing assessment of the current agricultural situation abroad.

INDICES OF AGRICULTURAL PRODUCTION 1960-69 IN AFRICA AND THE NEAR EAST. Foreign Regional Analysis Division. ERS-For. 265. (See above.)

JAPANESE EFFORTS TO DIVERSIFY SOURCES OF AGRICULTURAL IMPORTS. Clarence E. Pike, Foreign Regional Analysis Division. ERS-For. 297.

The United States, though still Japan's supplier of farm products, faces increasing competition from Australia, Indonesia, Thailand, and Cambodia. Japan has encouraged trade with Asian nations because they are nearby sources for agricultural products and also offer market outlets for

Japan's industrial goods.

QUANTITIES OF PESTICIDES USED BY FARMERS IN 1966. Theodore Eichers and others, Farm Production Economics Division. AER-179.

Among other findings, pesticide use by U. S. farmers rose 10 percent between 1964 and 1966—an increase of 350 million pounds.

THE NETHERLANDS' MIXED FEED INDUSTRY: ITS IMPACT ON USE OF GRAIN FOR FEED. William E. Pearson and Reed E. Friend, Foreign Regional Analysis Division. ERS-For. 287.

Grain use in concentrated feeds has declined in the Netherlands because of increased use of lower cost substitutes, including manioc chips, meal, and corn gluten.

1969 SUPPLEMENT TO AN ANNOTATED BIBLIOGRAPHY OF PUBLI-

CATIONS RELATED TO GREAT PLAINS IRRIGATION. Farm Production Economics Division, in cooperation with Nebraska Agricultural Experiment Station. Neb. Agr. Expt. Sta. DAER 55.

This supplement includes summaries of various studies published in the 10 Great Plains States during March 1968-May 1969—covering such subjects as agronomy, agricultural engineering, and meteorology.

HUMAN RESOURCES IN THE OZARKS REGION. Herbert Hoover and Bernal L. Green, Economic Development Division, in cooperation with the Universities of Arkansas and Missouri Agricultural Experiment Stations. AER-182.

This is one in a series of reports on poverty conditions among rural people in selected areas of Arkansas, Missouri, Oklahoma.

Article Sources

State publications indicated by (*) may be obtained only from the experiment station or university cited. Manuscripts and special material are usually available only on request to authors.

1. Ronald A. Gustafson, Roy N. Van Arsdall, and others, FPED. *Cattle Feeding in the United States* (manuscript).
2. Helen T. Blake and others, FPED. *Farmers' Pesticide Expenditures in 1966* (manuscript).
3. Robert P. Jenkins, FPED. (Special material.)
4. Richard B. Smith, FPED, and Earl O. Heady, University of Iowa. *The Paradox of Farm Labor* (special material).
5. C. Kerry Gee, FPED. *Irrigated Pasture Production in Eastern Colorado* (speech at 1970 Fertilizer Conference, Ft. Collins, Colo., January 7-8, 1970).
6. Warren R. Grant, and Stanley S. Johnson, FPED. *Leasing on California Rice Farms* (speech at Rice Technical Working Group Conference, Beaumont, Texas, February 1970).
7. Herman W. Delvo and others, FPED. *Methods of Harvesting, Handling, and Drying Corn for Grain in Nebraska, 1964*, Univ. of Nebr., Agr. Exp't. Station, DAER-56.
8. Calvin L. Beale, Claude C. Haren, and Helen Johnson, EDD. (Special material.)
9. Hugh A. Johnson, NRED, and others. *Vacationer Characteristics and Recreation Interests at 90 Wisconsin Resorts in 1967* (manuscript).
11. Robert E. Freeman, EDD. *Rural Housing: Trends and Prospects* (manuscript).
12. Ward W. Bauder, EDD, and John E. Parr, Cornell Univ. *Workers in Agribusiness*, Part III, "Recruitment."
13. Anthony G. Mathis, ESAD. "Dairying in the 1970's," *Dairy Situation*, DS-229, and special material; also, *Consequences of Changing Production Standards for Manufacturing Grade Milk*, Univ. of Minn. (manuscript).

14. Malcolm Clough, ESAD. "Feed Price Variations—Past and Present," *Feed Situation*, FDS-233.
15. Malcolm Clough, ESAD. "Consumption of Corn, Oat, and Barley Food Products," *National Food Situation*, NFS-132.
16. Charles Porter, ESAD. (Special material.)
17. Russell G. Barlowe and James R. Donald, ESAD. "The Cotton Fiber-Textile-Apparel Complex: Structure and Outlook for the 1970's," *Cotton Situation*, CS-246.
18. Warren Trotter, Yvonne Davies, and Richard B. Russell, Agricultural Research Center, Athens, Georgia. *Competition in Peach Processing* (manuscript).
19. Rosalind Lifquist and Eileen Taylor, MED. (Special material); also, Thomas T. Stout, MED. *Unit Pricing of Grocery Items: Some Policy Implications* (speech in Chicago, May 1970).
20. Corinne LeBovitz, ESAD. "Foods Eaten Away From Home," *National Food Situation*, NFS-132.
21. Denis F. Dunham, MED. "Food Costs: 1960's in Perspective," *Marketing and Transportation Situation*, MTS-177.
22. Donald W. Regier and O. Halbert Goolsby, FDTD. *Growth in World Demand for Feed Grain* (manuscript).

NOTE: Unless otherwise indicated, authors are on the staff of the Economic Research Service (ERS) with their divisions designated as follows: Economic and Statistical Analysis Division (ESAD); Economic Development Division (EDD); Farm Production Economics Division (FPED); Foreign Development and Trade Division (FDTD); Foreign Regional Analysis Division (FRAD); Marketing Economics Division (MED); and Natural Resource Economics Division (NRED).

Economic Trends

Item	Unit or Base Period	'57-'59 Average	1969		1970		
			Year	May	March	April	May
Prices:							
Prices received by farmers	1910-14=100	242	275	278	289	281	282
Crops	1910-14=100	223	220	227	221	220	233
Livestock and products	1910-14=100	258	323	321	346	334	324
Prices paid, interest, taxes and wage rates	1910-14=100	293	373	375	385	388	388
Family living items	1910-14=100	286	351	351	362	364	365
Production items	1910-14=100	262	304	306	311	313	312
Parity ratio		83	74	74	75	72	73
Wholesale prices, all commodities	1957-59=100	—	113.0	112.8	116.6	116.6	116.8
Industrial commodities	1957-59=100	—	112.7	112.2	115.8	116.2	116.6
Farm products	1957-59=100	—	108.5	110.5	114.3	111.3	111.2
Processed foods and feeds	1957-59=100	—	119.8	119.4	124.9	124.9	124.0
Consumer price index, all items	1957-59=100	—	127.7	126.8	133.2	134.0	134.6
Food	1957-59=100	—	125.5	123.7	131.6	132.0	132.4
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,173	1,157	1,224	1,226	—
Farm value	Dollars	388	477	473	509	489	—
Farm-retail spread	Dollars	595	696	684	715	735	—
Farmers' share of retail cost	Percent	39	41	41	42	40	—
Farm Income: ²							
Volume of farm marketings	1957-59=100	—	127	97	98	96	101
Cash receipts from farm marketings	Million Dollars	32,247	47,431	3,306	3,444	3,311	3,400
Crops	Million Dollars	13,766	18,939	870	921	858	900
Livestock and products	Million Dollars	18,481	28,492	2,436	2,523	2,453	2,500
Realized gross income ³	Billion Dollars	—	54.6	—	56.0	—	—
Farm production expenses ³	Billion Dollars	—	38.6	—	39.7	—	—
Realized net income ³	Billion Dollars	—	16.0	—	16.3	—	—
Agricultural Trade:							
Agricultural exports	Million Dollars	4,105	6,228	584	563.1	553.7	—
Agricultural imports	Million Dollars	3,977	5,024	438	513.3	507.6	—
Land Values:							
Average value per acre	1957-59=100	—	⁵ 187	⁶ 187	186	⁷ 186	⁷ 186
Total value of farm real estate	Billion Dollars	—	⁵ 202.6	⁶ 202.6	208.9	⁷ 208.9	⁷ 208.9
Gross National Product: ³							
	Billion Dollars	457.3	932.1	—	959.6	—	—
Consumption	Billion Dollars	294.2	576.0	—	600.4	—	—
Investment	Billion Dollars	68.0	139.4	—	135.0	—	—
Government expenditures	Billion Dollars	92.4	214.6	—	221.2	—	—
Net exports	Billion Dollars	2.7	2.1	—	3.0	—	—
Income and Spending: ⁴							
Personal income, annual rate	Billion Dollars	365.3	747.2	740.0	783.3	801.3	793.5
Total retail sales, monthly rate	Million Dollars	17,105	29,303	29,386	29,801	30,387	—
Retail sales of food groups, monthly rate	Million Dollars	4,160	6,322	6,312	6,679	6,669	—
Employment and Wages: ⁴							
Total civilian employment	Millions	63.9	77.9	77.3	79.1	78.9	78.4
Agricultural	Millions	5.7	3.6	3.8	3.6	3.6	3.6
Rate of unemployment	Percent	5.5	3.5	3.5	4.4	4.8	5.0
Workweek in manufacturing	Hours	39.8	40.6	40.7	40.2	40.0	39.9
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	3.19	3.16	3.31	3.32	3.35
Industrial Production: ⁴	1957-59=100	—	173	173	171	170	169
Manufacturers' Shipments and Inventories: ⁴							
Total shipments, monthly rate	Million Dollars	28,745	54,611	53,741	54,954	54,511	—
Total inventories, book value end of month	Million Dollars	51,549	95,905	92,139	96,916	97,604	—
Total new orders, monthly rate	Million Dollars	28,365	54,815	54,133	53,881	53,640	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual and quarterly data are on 50-State basis. ³ Annual rates seasonally adjusted first quarter. ⁴ Seasonally adjusted. ⁵ As of March 1, 1969. ⁶ As of November 1, 1969. ⁷ As of March 1, 1970.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

UNITED STATES GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS, WASHINGTON, D.C. 20402

OFFICIAL BUSINESS



PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, \$300
(GPO)

To stop mailing ☐ or to change your
address ☐ send this sheet with new
address to The Farm Index, OMS, U.S.
Department of Agriculture, Rm. 1459,
Washington, D.C. 20250.